

**EXHIBIT 241**  
**REDACTED**



FAN deal discussion

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## Executive summary: a FAN deal is good for Google

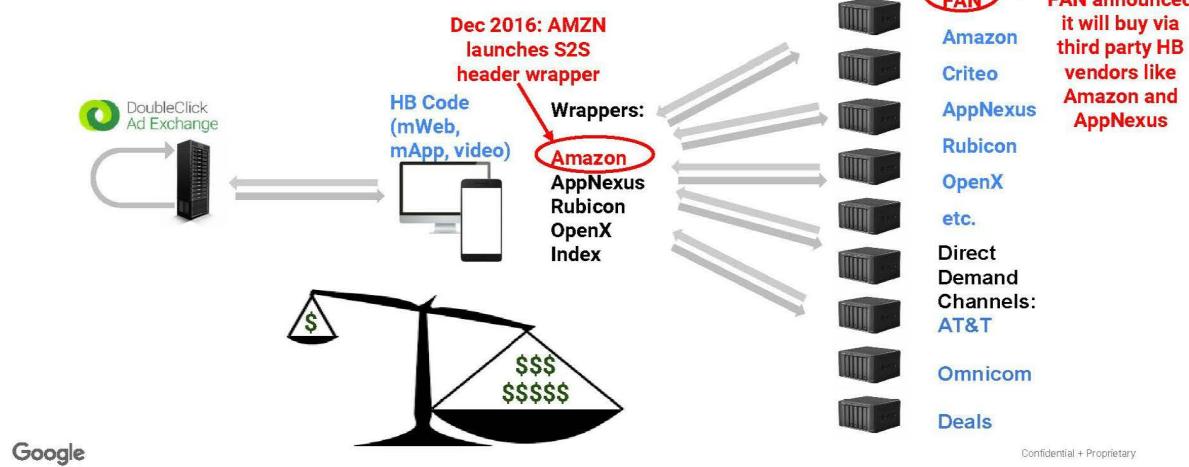
- Header bidding is a threat to our platform position, already on █████ of AMS LPS
- Facebook and Amazon have each launched new HB-based buying products
- Exchange bidding (our response) is doing well, but not reversing the HB trend
- FAN requires special deal terms, but is worth it to cement our value
- A FAN deal also creates opportunity to move mApp mediation to programmatic

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## Accretion of off-platform value puts our access at risk

**RISK:** If header bidding consolidates all non-Google demand, we could lose our must-call status and be dis-intermediated



## HB adoption continues to grow on LPS Pubs

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[Full deck from sales](#)

Google

\* Source: DRX data, LPS, DAOF only

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First, let's have a look at how things evolved since the First HB Observatory in Q4: HB adoption continues to grow on LPS Pubs

█████ of LPS publishers are using header tags (as of Feb 2017)  
LPS AMS pubs have the highest volume of pubs using HB █████  
LPS EMEA and APAC have similar adoption █████

In we focus on AMS

Adoption has been pretty steady in AMS of 4-5 pubs per month

Jump in AMS Aug/Sept driven by increased adoption in LatAm (5 new pubs); Rubicon and Amazon are drivers; volume of HB impressions only increased by █████ of total AMS LPS HB impression volume)

C:\Users\lackovic\Google Drive\Header Bidding\HB DRX Liberated Data.xlsx  
"pivot4" tab

## Amazon and Facebook have gotten behind header bidding

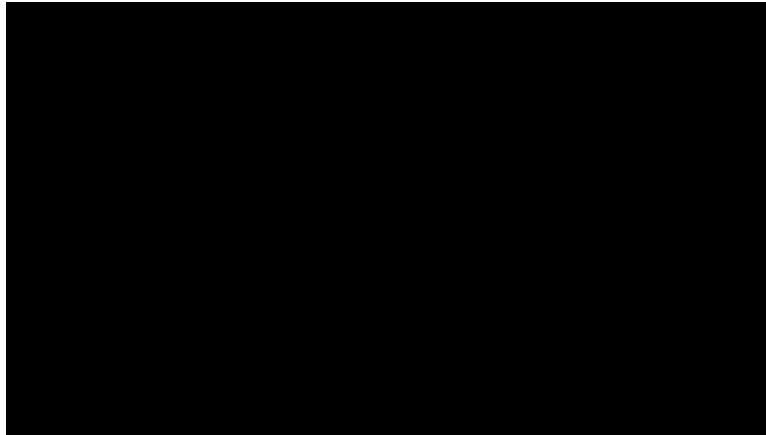
- **Amazon** launched [Amazon Publisher Services](#) in December ([compete deck](#))
  - Transparent Ad Marketplace: nearly-free exchange bidding competitor, [REDACTED] so far, mostly Americas to date
  - [REDACTED] of header bidding impressions
- **Facebook** FAN has started buying through HB
  - [Six header bidding integrations](#), including Amazon. Claim [REDACTED] lift on matching imps, [REDACTED] overall lift.
  - Facebook needs to work through HB, because they have relatively low fill on mWeb (only when they have a login) – they have limited presence on DFP so far (FAN is [REDACTED] of HB impressions)



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## Exchange bidding is beating targets, but still early days



- 87 pubs
- 8 SSPs
- Web & mApp
- [Open Beta](#) announced
- Roadmap: video, native, AMP, deals

➤ EB success does not reverse the openness trend, it just moves the implementation from client-side onto our stack

## Working with FAN is a win-win for us and FB

- What's in it for FAN:
  - Inventory access -- leverage DRX & AdMob global footprint (but they still must sign pub contracts)
  - Better tech – buy directly via our platform instead of extra hop via Amazon/AppNexus
  - [REDACTED]
- What's in it for Google:
  - Fair per-query competition – we can't be sure of this via HB or mApp mediation
  - Monetizes FAN demand ([REDACTED])
  - Solidifies DRX+AdMob status as the must-call platform, reduces appeal of header bidding
  - FB as anchor tenant could help us move other mApp networks from Mediation to EB
  - **If we don't, FB is likely to double down on Amazon, AppNexus, and MoPub partnerships**

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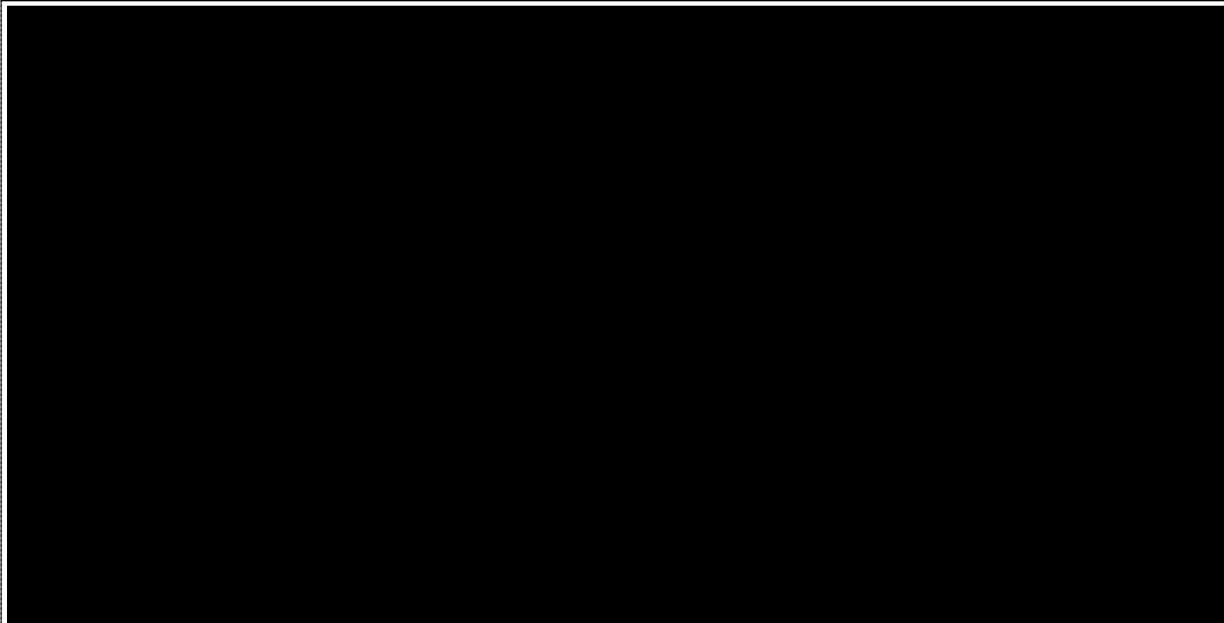
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## A FAN deal is also a good opportunity for mApp

- Mobile app networks like MoPub continue to focus on mediation
  - Free, and puts network SDKs into apps, but entrenches the waterfall
- FAN is resistant to mediation, does not want their pricing data to be scraped
- FAN *\*is\** interested in moving to per-query pricing models for mApp -- they want their deal with us to extend to AdMob apps
- We can generalize the FAN deal to "Jedi for Networks" -- deal terms that any mApp network using mediation could agree to
- We can introduce a programmatic solution later to AdMob as an improvement on mediation and a differentiator vs MoPub, with FAN as a launch partner / key endorser

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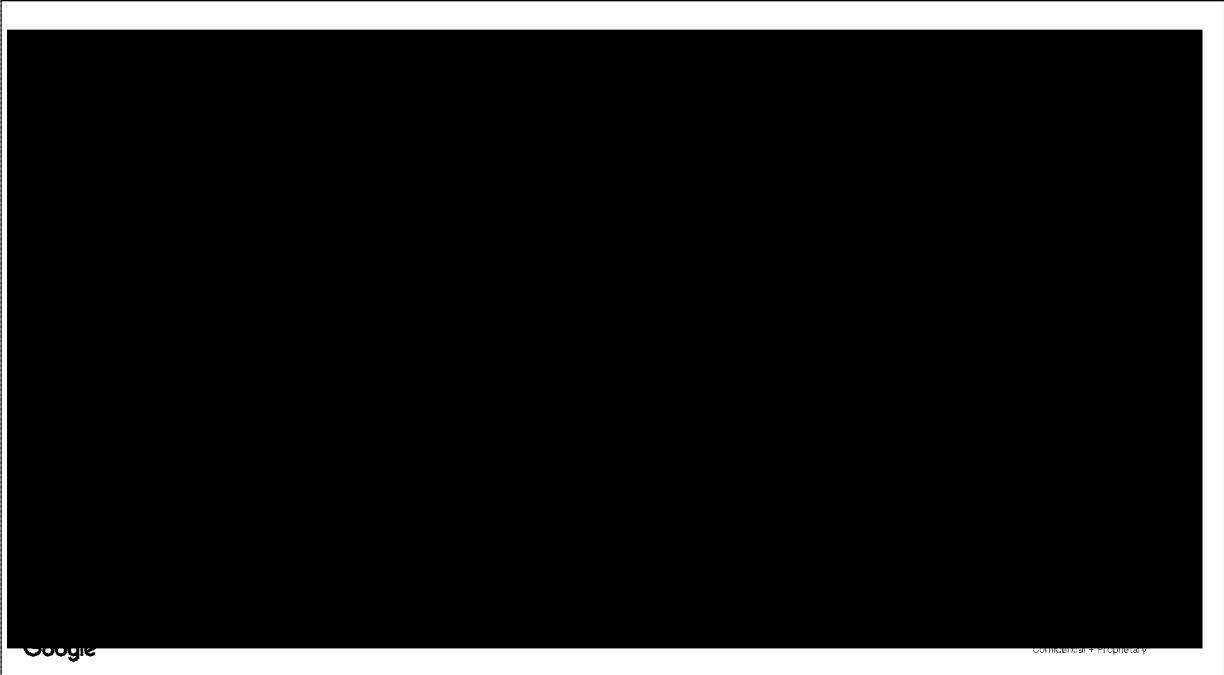
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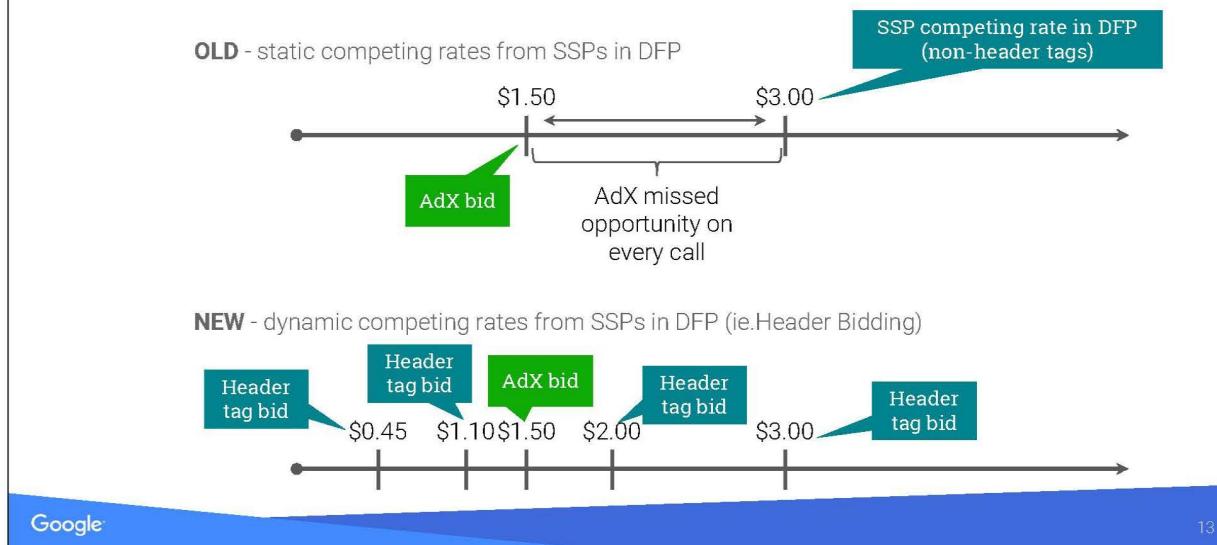
## Appendix

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Optional Slide

## Reminder: How Header Bidding came to be



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Let's quickly review how header bidding came to be.

Back when AdX launched, we imagined publishers would select one exchange partner to manage all programmatic demand. Managing multiple ad networks with different static price points had proven to be such a headache for pubs it didn't seem logical that they would want to go down the same road with exchanges, especially since all exchanges had access to essentially the same demand. That was except for AdX, which had exclusive access to GDN demand. Exclusive access to the largest ad network in the world and the fact we had our proprietary contextual targeting algorithm, we assumed that AdX would be the preferred exchange for pubs. However, it quickly became apparent pubs were willing to work with multiple exchanges. Our clean second price auction was perceived by some as leaving money on the table, due to the gap between a marketer's willingness-to-pay and the auction closing price. But in a second price auction, buyers will generally bid higher than what they are willing to pay, because they have the expectation that the clearing price will be lower. Pubs and other Exchanges saw this as an opportunity to make more money. If a competitive exchange could close an auction at a higher price through a modified second price auction they could increase yield for a pub. In short, pubs came to realize pitting multiple exchanges against one another fostered price competition, which was good for business.

Of course, throughout this period AdX was not our only product in the market. We were committed to our 'own the tag' DFP strategy and our full stack capabilities still put us significantly ahead of our ad tech peers. Dynamic Allocation was a key strategic pillar for us. The fact that AdX demand could bid and win in real-time against our tag-based indirect competition and ultimately against directly sold ads was key to establishing ourselves as a preferred holistic yield management partner to a great many pubs across the globe. We proved that being able to submit prices on a per impression basis was good for pubs. This became even more apparent as user targeting such as our GDN and DBM interest category and remarketing capabilities grew to billion dollar plus businesses.

Other exchanges booked within DFP did not feel it was fair that AdX was given special per impression treatment. AdX network buying partners that enjoyed the benefits of Dynamic Allocation in DFP wanted to make sure they had access to inventory on a per impression basis elsewhere. To be strategically relevant, our competition needed to develop a solution to remain competitive with our full stack. This need was met in the form of header bidding. Developed initially by Criteo and adopted by other networks and exchanges, header bidding allowed these demand sources to submit prices into DFP and other ad servers on a (nearly) per impression basis. This increased competition across all direct and indirect demand sources and led to significant uplift for pubs.

Optional Slide

## Reminder: The Header Bidding use cases

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High CPM, low fill  
demand in competition  
everywhere

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Per impression price  
competition across all  
exchanges

3

Programmatic deals from  
any network or exchange

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Here are the three distinct use cases have developed due to the investment in header bidding.

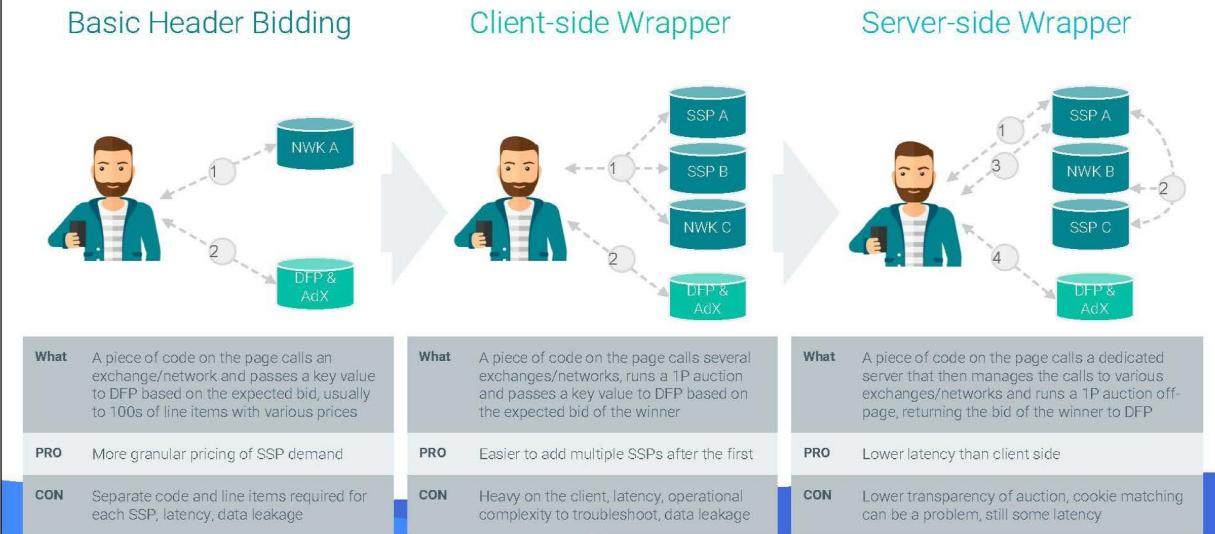
High CPM, low fill demand (e.g. remarketing by Criteo and Amazon) is able to compete against the vast majority of standard direct and indirect impressions

Exchanges can compete against one another with accurate per impression pricing

Programmatic deals from any network or exchange can compete against traditional directly sold ads

Optional Slide

## Reminder: The different types of Header Bidding



There are also different types of Header Bidding

### Basic Header Bidding

Simple to work with one partner but separate codes if working with several SSPs, adding latency

### Client-side Wrapper

Offers inventory to multiple exchanges before making ad calls to their ad servers

Ad calls are made from the user's browser and auction rules are also run by the browser using code in the header

Prone to higher levels of latency and impacted user experience

Examples: Rubicon Fast Lane, AppNexus

### Server-Side Wrapper

Ad calls are made outside of the user's browser with the auction taking place in an external server after a single ad call is made

However, the browser still makes the first call to the header bidder server and receives an answer which it passes to the adserver

Improves speed and latency, but will not be without any drawbacks (e.g. potential cookie loss)

Example: Amazon, Prebid.js Server

These are distinct from true server-to-server integration like Google's Exchange Bidding, which is NOT a form of header bidding (there is no code in the header)

### Server to Server

All ad calls and auction rules are run off-browser with the tech provider managing and hosting the entire solution

There is no header code on the page and no initial call from the user's browser to the header bidding server.

Communications flow directly between the publisher ad server and the other server.

Allows for a true unified auction to take place, with improved speed and reduced latency and inefficiencies for partners

Example: DoubleClick Exchange Bidding in Dynamic Allocation

Optional Slide

## Reminder: The drawbacks of Header Bidding

### Sell-Side

- **Latency** for publishers and users
- Creative **controls**
- Pricing and billing **transparency**
- Operational **complexity** and loss of **forecasting integrity** in the adserver
- Data **security / leakage**

### Buy-Side

- **Self-competition**
- **Increased QPS** adding to **machine costs**
- **Sub-syndication** leading to additional cuts
- **Engineering resources** to develop intelligent bid filtering and decision logic

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While the technology in Header Bidding has become more sophisticated over time, it still requires at least one extra tag on the page. The additional client-side request(s) along with other server-side technology add latency for both publishers and users. Other problems exist throughout the end-to-end process (e.g. creative controls, pricing & billing transparency, data leakage) but publishers have been willing to put up with such issues in return for greater revenue.

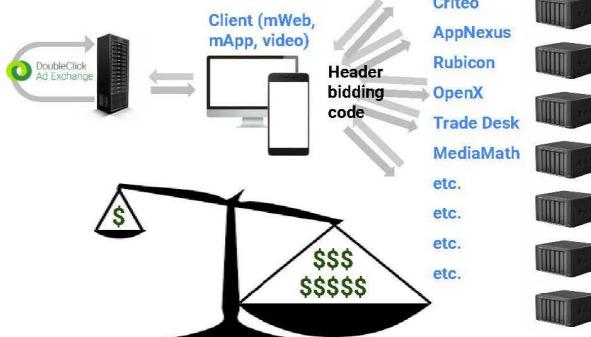
On the buy-side, header bidding poses a different set of issues. When multiple exchanges are called for a single ad slot, buyers wind up bidding multiple times for the same impression, resulting in self-competition. The increase in queries-per-second (QPS) for both networks and DSPs add to machine costs. These problems get worse when header bidding providers sub-syndicated impressions to other unauthorized SSPs that take a cut and reduce the share of an advertiser's dollar that makes it to the publisher. Beyond the pure machine costs and additional revenue shares or tech fees, engineering resources are needed to develop intelligent bid filtering and decision logic.

## Header bidding puts DFP's must-call status at risk

Google programmatic is only [REDACTED] of DFP media (est. [REDACTED] total)



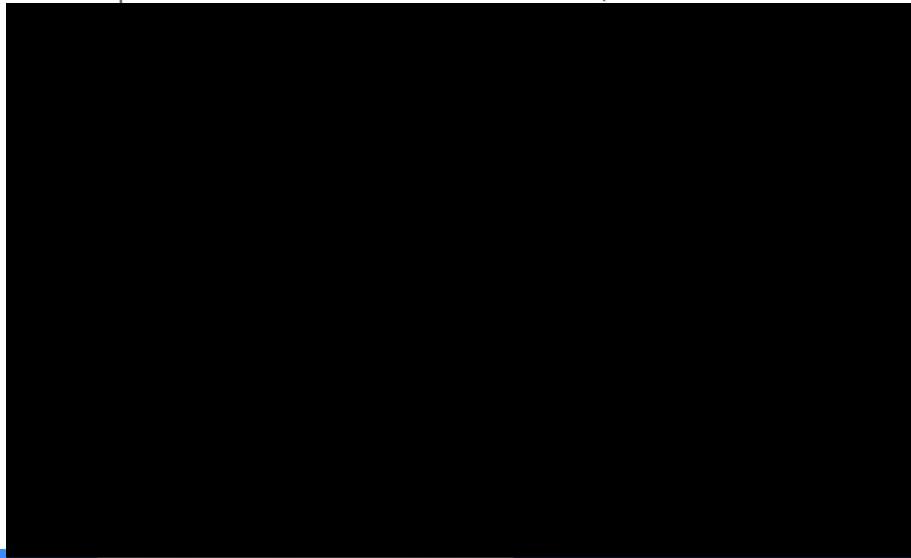
If header bidding consolidates all non-Google demand, we could lose our must-call status and be intermediated



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HB adoption in OPG T1 is slower, and flat outside AMS Proprietary & Confidential



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\*Source: DRX data, OPG T1, DAOF only

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On the OPG T1 side, HB adoption is quite flat, except in AMS

